

## Salticidae from the Himalayas. The genus *Epocilla* Thorell 1887 (Arachnida: Araneae)\*

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**Abstract** — A new species of the jumping spider genus *Epocilla* Thorell 1887, *E. chimakotiensis* sp. n. is described from the Bhutan Himalayas. *Epocilla praetextata* Thorell 1887 is reported for the first time from the Himalayas. Female of *E. praetextata* is described for the first time. Diagnoses, descriptions and drawings of diagnostic characters for those species are given. Check-list of species of *Epocilla* from the Himalayas is given.

**Key words** — *Epocilla*, new species, jumping spiders, Salticidae, Himalayas, Bhutan, Nepal

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### Introduction

The Himalayas are regarded as a region of contact between the two great biogeographic realms which meet and intermesh in various ways. The criteria for classification (for both phytogeography and zoogeography) show that the Himalayas are a meeting place for florae and faunae of different origins and ecological requirements. All areas north of the Central Himalayas belong to the Palearctic realm. The lower and lowest altitudes of the southern flanks are associated with the Oriental realm. The border between two regions is not striking and abrupt, but forms over vast distances a transition area (Martens 1984).

These unusual conditions (location, topography, variety of climate) cause of taxonomic richness of many groups of plants and animals.

This paper deals with the genus *Epocilla*, and is the next paper from series, which aim is a complete taxonomic study of the Himalayan salticid fauna and its zoogeographical and evolutionary analysis.

### Material and Methods

Material for this study was provided by Naturmuseum und Forschungsinstitut Senckenberg, Frankfurt a. M. (the collection of Prof. J. Martens, Mainz) (SMF) and Naturhistorisches Museum, Basel (the collection made by Dr W. Wittmer, Dr O. Stemmler, Dr C. Baroni-Urbani and Dr M. Würmli) (NHMB).

The drawings were made using a grid system. Descriptions of colours pertain to wet specimens. Dissected epigyna were macerated in 10% KOH for 24 hrs. The format of leg spination follows Platnick & Shadab (1975). All

measurements are in mm.

Abbreviations used: AEW = anterior eye width, AL = abdomen length, CL = cephalothorax length, CW = cephalothorax width, EFL = eye field length, PEW = posterior eye width, pm = prolateral metatarsal spines, pt = prolateral tibial spines, rm = retrolateral metatarsal spines, rt = retrolateral tibial spines.

### Descriptions of species

#### Genus *Epocilla* Thorell 1887

*Epocilla* Thorell 1887, p. 378; Żabka, 1985, p. 216.

The genus *Epocilla* was established by Thorell 1887, for *Epocilla praetextata* Thorell 1887 and consists of 9 species (Prószyński 2007, Platnick 2006). Species of Simon (1901) and Thorell (1895) could be verified.

The genus *Epocilla* is an oriental genus, which is related to the genera *Phintella*, *Icius* and *Pseudicius* and is represented in the Himalayas by the following species:

*E. chimakotiensis* sp. n.: Bhutan, described here in;

*E. praetextata* Thorell 1887: Myanmar (Thorell 1887, Prószyński 2007), Java (Thorell 1892), Bhutan and Nepal, redescribed here in;

*E. xyliina* Simon 1906: Himalayas (no location).

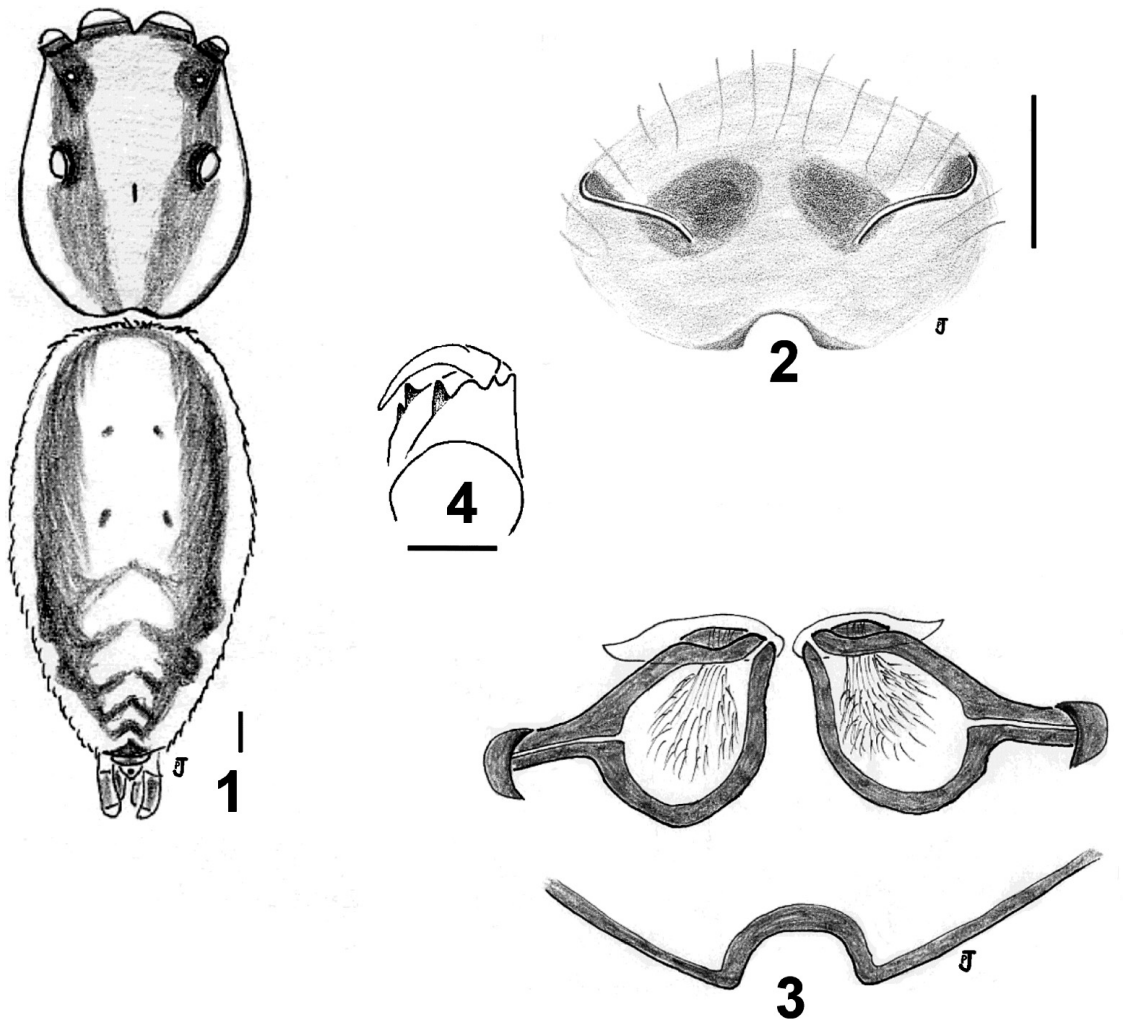
#### *Epocilla chimakothiensis* new species (Figs 1–4, 14, 15)

**Etymology:** name after the village of Chimakothi, type locality.

**Types series:** Holotype female: Bhutan: (NHMB) Chimakothi, 1900–2300 m alt., 14.05.1972, W. Wittmer, O. Stemmler, C. Baroni-Urbani, M. Würmli.

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**Figs. 1–4.** *Epocilla chimakotiensis* sp. n. (holotype, female). 1 Dorsal aspect; 2. epigynum; 3. internal genitalia; 4. cheliceral dentition. Scale: 0.2 mm.

**Diagnosis:** This new species could be recognized from related *E. praetextata* and *E. calcarata* by narrower copulatory openings and insemination ducts jointed with spermathecae in right angle.

**Description.** Male unknown.

**Female.** Eye field pale yellow. Surroundings of eyes black. Along sides and thoracic part of cephalothorax wide white belts. The rest of cephalothorax orange. Abdomen white with two brown-grey longitudinal belts. Spinnerets pale yellow. Clypeus white. Chelicerae light yellow. Maxillae and labium light yellow, its tips white. Sternum and venter white. Pedipalps white. Epigynum weakly sclerotised with rectangular notch. Copulatory openings narrow, located laterally. Insemination ducts very short, jointed with spermathecae in right angle. Spermathecae oval. Accessory glands in the spermatheca's wall, branch. Legs pale yellow.

**Leg spination:** tI: p1-1-1 r1-1-1; mI: p1-1 r1-1; tII: p1-1-0 r0-1-1; mII: p1-1 r1-1.

**Measurements:** CL 2.44, CW 1.96, EFL 1.00, AEW 1.52,

PEW 1.44, AL 3.68.

**Eye field ratio:** EFL/CL 0.41, AEW/PEW 1.06.

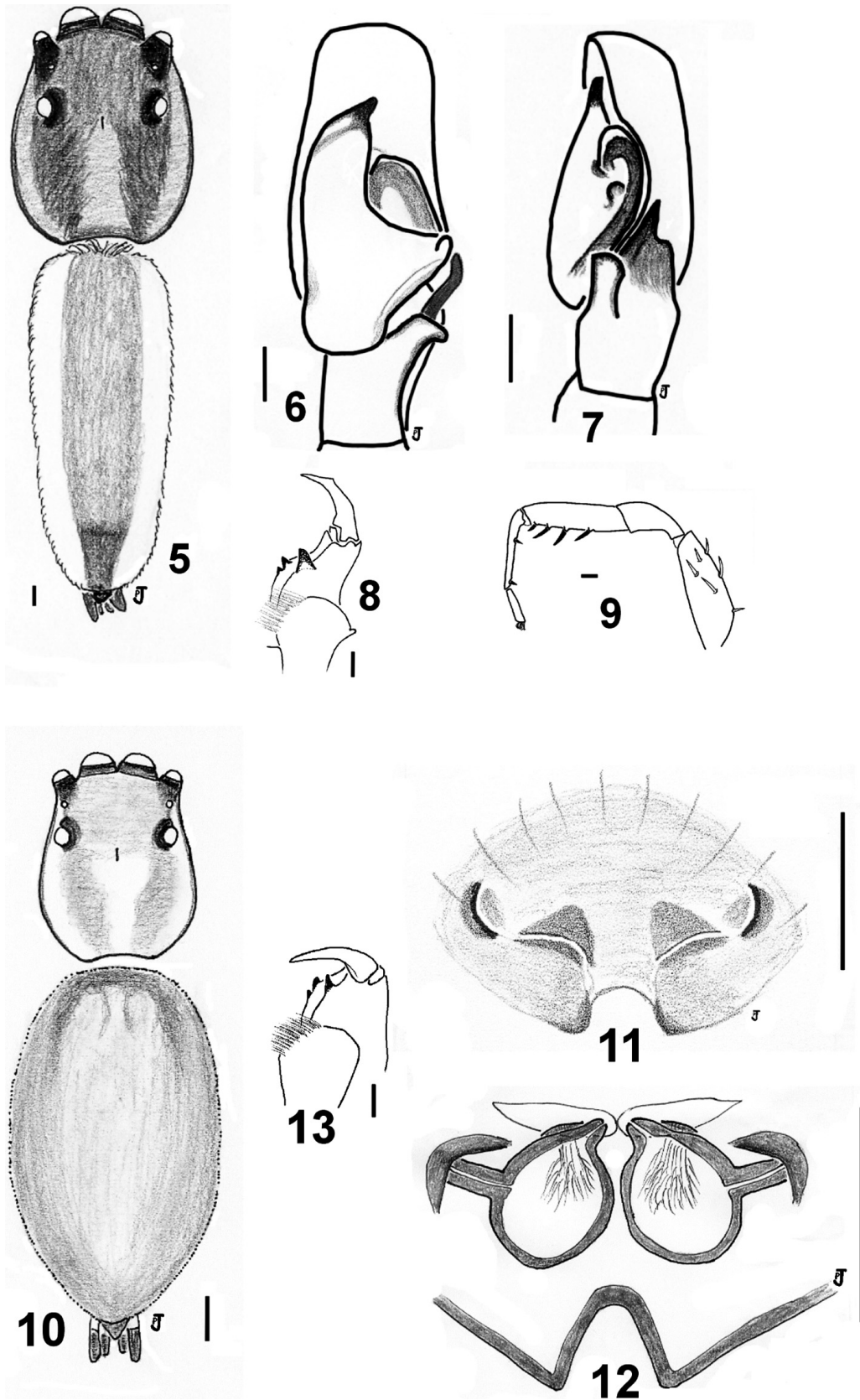
**Habitat:** Bhutan — evergreen deciduous forest, 1900–2300 m a.s.l.

*Epocilla praetextata* Thorell 1887  
(Figs 5–13, 16–19)

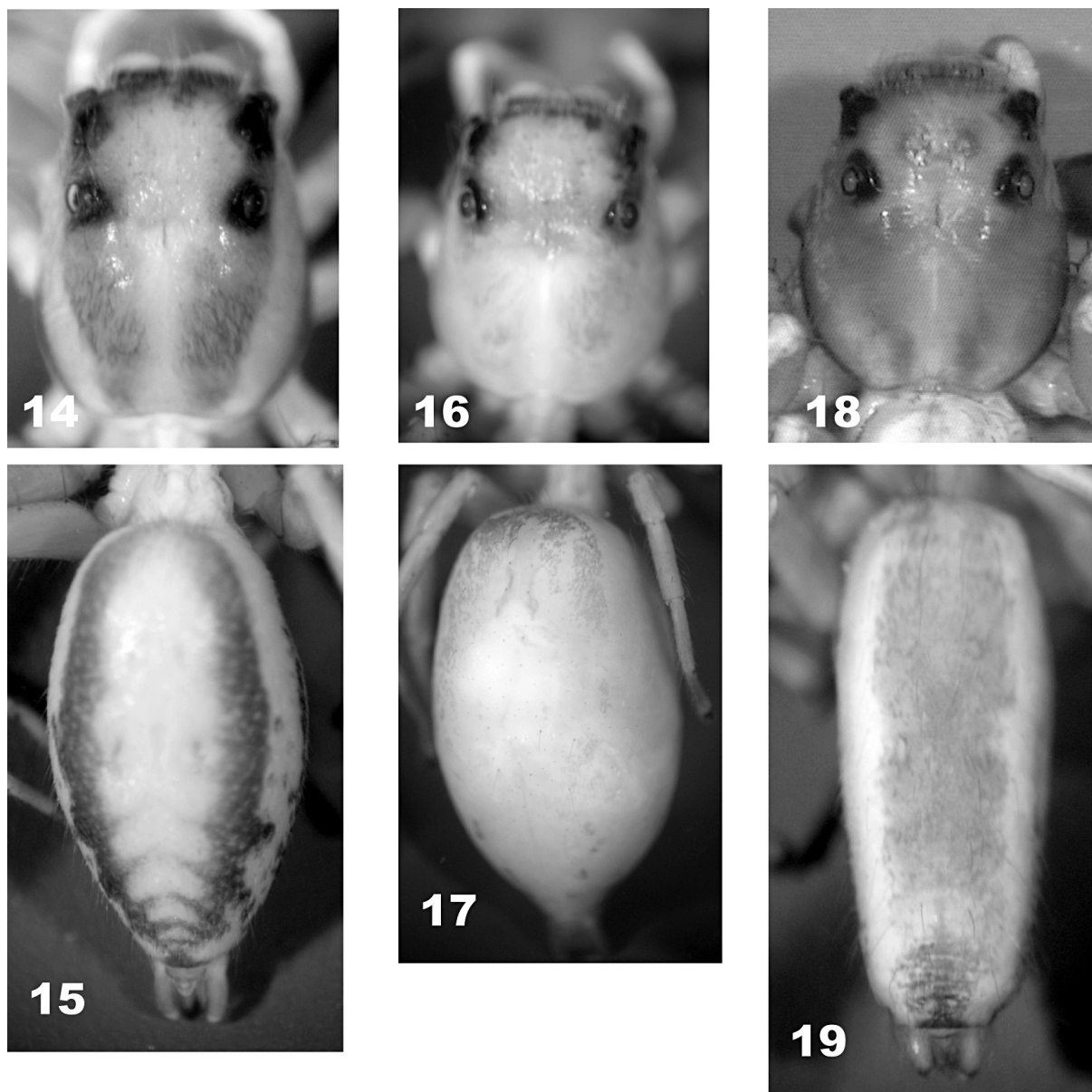
*E. p.* Thorell 1887, p. 378; Prószyński 2007.

**Material:** BHUTAN: 1♀ (NHMB) Samchi, 300 m, 7.-11.05.1972, W. Wittmer, O. Stemmler, C. Baroni-Urbani, M. Würmli; NEPAL: 1♀ 1♂ (SMF) Lamjung Distr., Marsyandi, Phalesangu-Lamjung, 640–750 m, tree-rich cultural land, 9.04.1980, J. Martens & A. Ausobsky; 1♂ (SMF) Panchthar Distr., zw. Hinwa u. Elluwa Khola, Yektis, 1200–1400 m, cultur land/busch, 30.08.1983, J. Martens & B. Daams; 1♂ (SMF) Eastern Dhaulagiri, Thakkhola, Pokhara, 950 m, 6.05.1973, J. Martens.

**Diagnosis:** The male of *E. praetextata* differs from *E.*



**Figs. 5–13.** *Epocilla praetextata* Thorell 1887 (Marsyandi, the Himalayas). 5. Dorsal aspect of male; 6. palpal organ, ventral view; 7. same, lateral view; 8. cheliceral dentition of male; 9. first leg of male; 10. dorsal aspect of female; 11. epigynum; 12. internal genitalia; 13. cheliceral dentition of female. Scales: 0.2 mm.



**Figs. 14–19.** Colouration of species of *Epocilla*. 14, 15. *E. chimakotiensis*; 16, 17. *E. praetextata*, female; 18, 19. *E. praetextata*, male.

*calcarata* in blunt embolus and double tibial apophysis: the retrolateral one short and flatt; the dorsolateral one narrow slightly curved and blunt. The female of *E. praetextata* morphologically close to *E. calcarata* and *E. chimakothiensis* sp. n. from which could be distinguish by wider copulatory openings and insemination ducts jointed with spermatheca in sharp angle.

**Description** (based only on material from Bhutan and Nepal). Male. Cephalothorax brown, with a belt of sparse, short white hairs along lower margin. Surrounding of eyes: AM dark brown, covered with dense, short, white hairs; AL, PM and PL black. Abdomen pale yellow, its back end greyish. On the dorsum wide, longitudinal, light brown belt. Spinnerets grey. Clypeus and chelicerae light brown. Maxillae and labium light brown, its tips white. The first

with lateral process. Sternum shiny white. Venter white with dirty coating. Pedipalps brown, only patella and tibia white. Bulbus triangular, on the surface of bulbus (close to retrolateral side) oval outgrowth. Embolus apical, short, blunt. Tibial apophysis double: retrolateral — short, flat, weakly sclerotised, dorsolateral — wide basally, its tip sharp. Legs: I - robust, brown, on the tibiae, metatarsi and dorsal part of coxae thick spines. The rest of legs pale yellow with delicate, dark spines and sparse hairs.

Leg spination: tI: p1-1-1-1, r1-1-1-1; mI: p1-1, r1-1; tII: p1-1-0, r1-1-1; mII: p0-1, r1-1.

Measurements: CL 2.45, CW 1.97, EFL 0.98, AEW 1.49, PEW 1.42, AL 3.26.

Eye field ratio: EFL/CL 0.40, AEW/PEW 1.05.

Female (first description). Surroundings of eyes black.

Eye field yellow. Dorsum and lateral surface of thoracic part light yellow. Abdomen ivory; in frontal part two light brown stains jointed with oneself. Spinnerets pale yellow. Clypeus white. Chelicerae light orange. Maxillae and labium light yellow, its tips white. Sternum, venter and pedipalps white. Epigynum weakly sclerotised with triangular notch. Copulatory openings narrow, placed laterally. Insemination ducts very short, jointed with spermatheca in sharp angle. Spermathecae oval. Accessory glands in the spermatheca's wall, branch. Legs pale yellow.

Leg spination: tI: p1-1-1 r1-1-1; mI: p1-1 r1-1; tII: p1-1-0 r0-1-1; mII: p1-1 r1-1.

Measurements: CL 2.56, CW 2.12, EFL 1.08, AEW 1.64, PEW 1.64, AL 4.20.

Eye field ratio: EFL/CL 0.39, AEW/PEW 1.00.

*Remark:* Outside the Himalayas this species occurs in Myanmar (Proszynski 2007) and in Java (Thorell 1887).

*Habitat:* Nepal - mezophilic tropical forest, 950 m a.s.l.; cultural lands, 640–1400 m a.s.l., Bhutan - damp forest, 300 m a.s.l.

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